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REMARKS

The Office Action dated June 1, 2005 has been carefully considered. Accordingly, the changes presented herewith, taken with the following remarks are believed sufficient to place the present application in condition for allowance. Reconsideration is respectfully requested.

Claims 1-33 remain pending in the present application. By the present amendment, claims 7, 16, 17, 19, 21, 25, and 33 have been amended. Claims 34-38 have been canceled.

The Examiner rejected claims 1-24 and 26-32 for failing to meet the requirements of 35 U.S.C. § 112, first paragraph. The Examiner asserted that the specification fails to enable a solvent-free coating process. Applicants respectfully disagree. Decisions from the Federal Circuit and its predecessor have repeatedly held that original claims in predictable arts are self-supporting.¹ In the instant case, claim 1 self-enables a process that permits, but does not require, the use of a solvent.

In further support, Applicants submit that claim 25 also suggests that claim 1 is not limited to the use of a solvent. Claim 25 recites, "A process as claimed in claim 1 wherein said coating further comprises a solvent selected from H₂O, isopropanol, and combinations thereof." Since claim 25 depends from claim 1, the addition of a solvent implies that Applicants originally contemplated the process of claim 1 could be solvent-free. Accordingly, Applicants believe a solvent-free coating process is enabled.

The Examiner rejected claim 14 for failing to comply with the written description requirement of 35 U.S.C. § 112, first paragraph. The Examiner asserts that the specification fails to convey to one skilled in the art that Applicants had possession of the claimed invention. More specifically, the Examiner cannot find the phrase "above room

¹ See, *In re Koller*, 613 F.2d 819, 204 (CCPA 1980)("original claims constitute their own descriptions"); see also, *In re Gardner*, 475 F.2d 1389 (CCPA 1973).

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temperature" in the specification as originally filed. Applicants now amend claim 14 to remove the phrase "above room temperature."

The Examiner next rejected claims 1-33 as being indefinite under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Applicants regards as the invention. More specifically, the Examiner noted five areas (denoted a-e in the Office Action) as non-compliant with § 112, second paragraph.

First, the Examiner questions the use of the plural form "regions" in claim 1 and claim 33. More specifically, the Examiner asks whether more than one region is required. In response, Applicants offer the following explanation. The use of the plural, "regions," is intended to encompass all regions or areas that are not carrying the mesoporous layer described in the specifications. In other words, reference could be made to more than one relevant region in certain situations. A primary region can generally be said to encompass other secondary regions depending on how the primary region is defined. One might refer to either a single region within a substrate, or alternatively, to the areas within a substrate. For the foregoing reasons, Applicants believe a change to the singular form, "region," is unwarranted. Applicants do not wish to appear argumentative, but in light of the fact that this independent claim is otherwise allowable without amendment, it would be advantageous to avoid such a change if possible.

Second, the Examiner asserted that claims 7, 25, and 33 (two instances) should be put into Markush terminology. Applicants note that it was not their intent to utilize Markush terminology. Applicants have amended the claims to clarify any confusion in this regard. Claim 7 now recites, "A process as claimed in claim 6 wherein said carbonaceous substance comprises carbon fibers, carbon particles, or combinations thereof." Claim 25 now recites, "A process as claimed in claim 1 wherein said coating further comprises a solvent comprising H₂O, isopropanol, or combinations thereof." The

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two relevant parts of claim 33 now recite, "said hydrophilic component comprises a carbonaceous substance comprising carbon fibers, carbon particles, or combinations thereof," and "said solvent comprises H₂O, isopropanol, or combinations thereof," respectively.

Third, the Examiner asserts that claim 16 and claim 17 are unclear as to what is meant by "decomposition comprises . . . component". More specifically, the Examiner states that decomposition is a process and therefore cannot comprise physical materials. Accordingly, Applicants have amended claim 16 and claim 17. Claim 16 now recites, "A process as claimed in claim 14 wherein said pore forming agent comprises a material selected such that end products of said decomposition comprise gaseous and liquid components." Claim 17 now recites, "A process as claimed in claim 14 wherein said pore forming agent comprises a material selected such that end products of said decomposition comprise at least one gaseous component and H₂O."

Fourth, the Examiner correctly points out that the recitation of 0 wt% in claim 19 is inconsistent with claim 1 which requires that the agent be present. Accordingly, Applicants have made the following change. Claim 19 now recites, "A process as claimed in claim 1 wherein said coating is provided as a mixture comprising up to about 15 wt% of said pore forming agent."

Finally, the Examiner asserts that the term substantially, as it relates to the amount of increase in claim 21, is not sufficiently defined. In response, Applicants have amended claim 21 to remove reference to the term.

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CONCLUSION

Applicants respectfully submit that the present application is in condition for allowance. The Examiner is encouraged to contact the undersigned to resolve efficiently any formal matters or to discuss any aspects of the application or of this response. Otherwise, early notification of allowable subject matter is respectfully solicited.

Respectfully submitted,

DINSMORE & SHOHL L.L.P.

By 

James E. Beyer

Registration No. 39,564

One Dayton Centre

One South Main Street, Suite 1300

Dayton, Ohio 45402-2023

Telephone: (937) 449-6400

Facsimile: (937) 449-6405

e-mail: james.beyer@dinslaw.com